

Amendment  
USSN 09/881,722

AMENDMENTS TO THE SPECIFICATION

Please replace the second paragraph of page 1 with the following paragraph:

B1  
The present invention relates to the field of telecommunications and in particular to optical transmission without any physical carrier. Still more in particular it relates to a method and system for establishing a terrestrial laser communication link capable of compensating for atmosphere scintillation, for instance caused by wind and/or [turbulence]turbulence.

Please replace the first paragraph of page 2 with the following paragraph:

B2  
As it is known, scintillation originates from the fact that the laser beam through cells of [turbulence]turbulence breaks up into several beamlets which, when received, can be summed with different phases so as to produce constructive or destructive interference effect. The final effect results in amplitude variations on the reconstructed signal. The higher frequency components of these variations are usually below one kHz and hence they do not directly affect the demodulation of the carried information, but they cause the received signal strength to periodically fall below the sensitivity threshold of the detector.

Please replace the second full paragraph of page 4 with the following paragraph:

B3 (N.E.)  
A transceiver of the present invention comprises a receiving surface for reflecting received signal-carrying coherent light from another transceiver. The receiving surface defines an outer edge. A single aperture for coherent light to be transmitted to another transceiver extends near to the outer edge of the receiving surface. A method of the present invention uses

Amendment  
USSN 09/881,722

such transceivers to transmit/receive a signal-carrying coherent light beam, so that the light to be transmitted by a transceiver and the light received by the transceiver are spatially separated from each other.

Please replace the third paragraph from the bottom of page 5 with the following paragraph:

B4  
The source 12 can be, e.g., composed of a pure laser, the output of an optical amplifier or the end of a signal-carrying fiber.

Please replace the heading before the second full paragraph of page 8 with the following heading:

B5  
Working conditions in the presence of [turbulence]turbulence

Please replace the third full paragraph of page 8 with the following paragraph:

B6  
In the actual atmosphere, we are practically always in the presence of [turbulence]turbulence cells and therefore, at each point of the receiving surface, waves arrive that come from an infinite number of slightly different directions, hence having a corresponding number of different scintillation events. This assertion amounts to say that under this condition the rays are totally uncorrelated.

Please replace the paragraph bridging pages 8 and 9 with the following paragraph:

Amendment  
USSN 09/881,722

B7

This, naturally, provided that the distance between the start points of the paths is comparable with that of the [turbulence]turbulence cells. This condition is indeed satisfied by utilizing the device according to the invention, over an earth-to-earth optical link, considering an annular aperture of the order of 20 cm or greater.

Please replace the second full paragraph of page 9 with the following paragraph:

B8

Looking at a light point source, significant variations in intensity can be observed which, the higher the [turbulence]turbulence, the larger they will be. Conversely, if a white surface is observed, which has an extension and contains dark details, in a low [turbulence]turbulence condition, the white and the dark inside the figure can be distinguished. Under higher [turbulence]turbulence conditions the dark details will disappear, but the overall luminosity of the figure will not vary in a considerable manner.